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ABSTRACT

Inequity theory differs from social exchange theory in its analysis of a worker's reaction to pay by asserting that effects on work performance caused by high or low pay are due to social comparison of fairness rather than principles of direct exchange, such as reciprocity and power. The present experiment held piece-rate pay constant at two levels and varied relative pay (80% higher, the same, 80% lower) reported by co-workers. Significant manipulation checks for relative pay were obtained. Significant performance differences for quantity and fewer pieces for lower relative piece-rate pay, were opposite predictions from inequity theory. No significant effects were obtained for quality, but the pattern of means was also the reverse of inequity theory predictions. This finding of effects due to social comparison which are the reverse of predictions from inequity theory raises questions both for inequity theory and for the portions of the more general equity theory which rely on social comparison processes. (Author)

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Social Comparison of Pay and Inequity Theory

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Abstract

Inequity theory differs from social exchange theory in its analysis of a worker's reaction to pay by asserting that effects on work performance caused by high or low pay are due to social comparison of fairness rather than principles of direct exchange, such as reciprocity and power. Surprisingly, a review of past research indicates that almost all experiments did not include opportunities for workers to compare pay and/or performance with co-workers. Thus, these experiments can not be supportive of inequity theory. The present experiment held piece-rate pay constant at two levels and varied relative pay (80% higher, the same, 80% lower) reported by co-workers. Significant ($p < .001$) manipulation checks for relative pay were obtained. Significant ($p < .04$) performance differences for quantity, fewer pieces for lower relative piece-rate pay, were opposite predictions from inequity theory. No significant effects were obtained for quality, but the pattern of means was also the reverse of inequity theory predictions. This finding of effects due to social comparison which are the reverse of predictions from inequity theory raises questions both for inequity theory and for the portions of the more general "equity theory" which rely on social comparison processes.

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Note: This experiment was conducted at the University of Texas at Arlington as part of a dissertation under the supervision of Dr. Howard Garland.

In contrast to the trend in recent years (e.g., Walster, Berscheid & Walster, 1973) to "lump everything remotely concerned with fairness together under the single rubric of equity theory" (Homans, 1976, p. 239), the argument of this paper is that the individual components of equity theory must be reexamined and the situations to which each might apply carefully specified. Adams' (1963, 1965) theory of social inequity is one of the key original components of equity theory. It will be explored by contrasting its analysis of an employee's reaction to his pay with the alternative analysis of social exchange theory (Homans, 1961; Thibaut & Kelley, 1959). The comparison will be useful in reintrepreting the inadequacies of previous tests of employee performance changes that might be predicted by inequity theory.

Inequity theory argues that a worker's response to his pay depends upon its perceived fairness. The theory is conveniently stated in three stages. First, upon expecting to receive his pay, the worker searches out another worker, usually a co-worker, for social comparison. Second, as a result of this comparison, the worker judges himself to be underpaid, fairly paid, or overpaid relative to the co-worker. Third, the worker restores fairness, defined in principle as equal ratios of effort to pay for the two co-workers. by decreasing effort when underpaid or by increasing effort when overpaid. It is important to notethat fairness is a response to relative pay, so that high or low pay as an absolute amount has no meaning for inequity theory. A final feature of this analysis is that, other than providing pay and work, the employer has no role unless he happens to be chosen as the employee's object of social comparison.

Social exchange theory suggests that employees as parties in a direct exchange relationship with their employer will evaluate their pay by reference to a comparison level. In general, as the absolute amount of pay increases, employees will be more satisfied. Pay below comparison level would be dissatisfying and might lead to lower effort or withdrawal from the relationship. Pay above comparison level would be definitely satisfying but would not lead to greater effort or other performance changes unless the employer appealed to a norm ofreciprocity or had the power to compell additional effort by the worker.

The best contrast between the two analyses occurs in the situation in which the employer has equal power over two workers, most plausibly by paying each equally, and in which the two workers individually compare their pay to different co-workers. If social comparison for the first worker identified relative overpay while social comparison for the second worker resulted in a judgment of fair pay, any performance differences could only be attributed to inequity reduction. Reviewers of early tests of the theory using the procedure of Adams and Rosenbaum (1962) usually criticize experiments using the procedure for self-esteem confounds or demand effects (e.g., Pritchard, 1969), but the experiments might just as well be reinterpreted as supporting social exchange theory because the procedure stresses the power of the employer over the worker and, further, provides no co-worker as a standard object of social comparison. Later tests (e.g., Andrews, 1967; Evan & Simmons, 1969; Moore & Baron, 1973; Valenzi & Andrews, 1971) varied absolute pay

without providing a co-worker for social comparison. The results of one experiment were partially consistent with inequity theory while the results of the others were clearly inconsistent with predictions. However, in the absence of an explicit social comparison, it is difficult to know to which theory the results should apply. Two additional experiments (Garland, 1973; Hinton, 1972), varied pay and also provided a co-worker for social comparison. Hinton found no significant performance differences. Garland's results were supportive of inequity theory, but left unanswered the question of whether the effects were due to higher levels of pay eliciting some reciprocity rule or due to the social comparison itself. One experiment (Haccoun & Wood,note 1) held pay constant and varied the wages reported by co-workers. No effects of perceived inequity were found. Middlemist and Peterson (1976) paid the worker and a co-worker equally and found that the worker always expended more effort than a comparison co-worker, which is totally inconsistent with the theory.

The present experiment attempts to induce inequity solely by social comparison according to the procedure developed in Garland (1973). Three levels of social comparison (underpay, equity, overpay) are crossed with 2 levels of actual pay (piece rates of 10¢ and 30¢). In addition, control subjects were hired at each level of pay without a co-worker for comparison. It is hypothesized that as a co-worker's reported piece-rate pay decreases (increasing overpay to the worker), the worker will produce less work of higher quality.

Procedure

College students (51 males and 44 females) completed a brief (15 minute) "experiment" consisting of filling out a four page questionnaire. They were then apparently debriefed and thanked for their participation. Next, they were told that the experimenter had a large backlog of computer data sheets that needed checking before analysis. After explaining that the Psychology Department was hiring part-time workers, the experimenter offered to pay them for 30 minutes work. Only 3 subjects declined. An additional 2 subjects stopped work upon learning of underpay. Subjects accepting work signed a pay agreement for either 10¢ or 30¢ per 3 lines of printout, and were led to another office. The 68 subjects in the social comparison conditions met a same-sex confederate, apparantly just finishing work, as they sat down. Approximately two minutes later the confederate counted out loud as he assessed his work and rate of pay, then got up and left. The rate announced by the confederate was 80% higher for underpay, equal for equity, and 80% lower for overpay. Subjects in the two no social comparison conditions simply worked 30 minutes in an empty room. Assignment to conditions was random and blind.

Figure 1. MANIPULATION CHECK

"Evaluate your rate of pay compared with that of other students doing similar work."

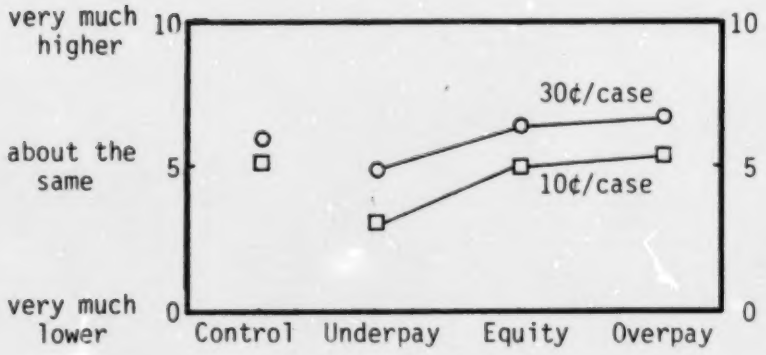


Figure 2. QUANTITY OF WORK PERFORMANCE

Lines of printout proofread in 30 minutes.

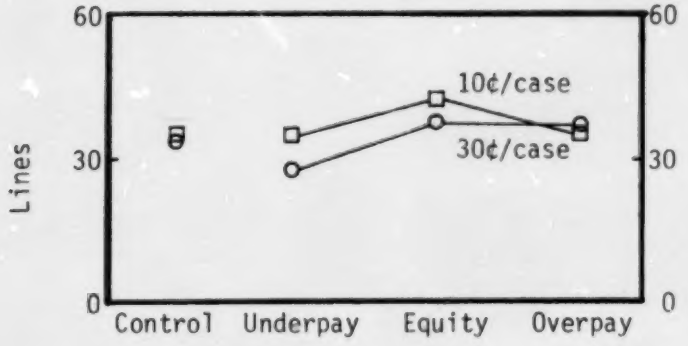
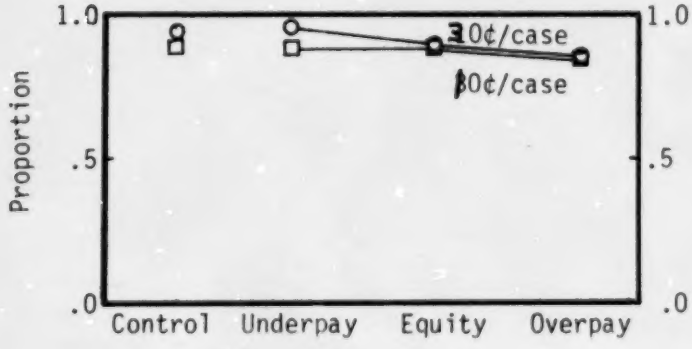


Figure 3. QUALITY OF WORK PERFORMANCE

Proportion of errors found in lines proofread



Results

For each dependent measure, two analyses are reported. The effects of social comparison were assessed by 2 (levels of pay) x 3 (levels of social comparison inequity analyses of variance. The effects of the presence of a co-worker were assessed by 2 (levels of pay) x 2 (co-worker present/absent) analyses of variance constrasting the no co-worker control groups with the two social comparison equity groups.

The manipulation check (see Figure 1) was generally succ ssful. Perceptions of pay differences relative to co-workers were significant, $p \leq .001$. However, post hoc comoarisons (Newman-Keuls) indicated that only the relative underpay groups significantly differed in the perception of inequity. In both 2 x 3 and 2 x 2 analyses, higher actual piece-rates (30¢ vs. 10¢) were perceived as relatively higher ($p \leq .001$).

Social comparison inequity resulted in significant differences in work quantity, $F(2, 56) = 3.36$, $p \leq .04$. Post hoc comparisons indicated that only the relative under-pay groups proofread fewer lines than other groups (see Figure 2). Workers with co-workers in the equity condition tended ($p \leq .12$) to produce higher work quantity than workers without co-workers.

Although social comparison inequity produced a pattern (see Figure 3), contrary to inequity theory, of lower quality with higher relative pay, differences were not significant ($p \leq .2$). No other effects were found on quality.

Conclusions

The results of this experiment raise serious questions for the portions of equity theory based upon social comparison processes. These would include the analysis of situations of distributive justice, such as victim derogation and the distribution of rewards in organizations, and the analysis of status phenomena, such as the matching hypothesis and status systems within groups. These all share the common assumption that individuals make a social comparison and, as a consequence, act to redress discovered dissatisfaction. Since social comparison does not result in the predicted effects, alternative analyses need to be developed. Indeed, it seems to me (and to Homans, 1976) that felt dissatisfaction leads to social comparison rather than vice versa. The best example of this is Patchen's (1961) dissertation. He found that workers who were dissatisfied with their job or pay at an oil refinery would cite social comparisons to more advantaged workers as evidence for the justice of their cause. Adams (1963) misinterprets this finding in arguing that the social comparison caused the worker's discontent.

In order to make the above assertions, two issues must be resolved. First, what about the long lists of worker performance experiments usually cited as supportive of equity theory (cf. Adams & Freeman, 1976; Walster, Walster & Berscheid, 1978)? Second, are the results of the current experiment reliable and representative of the situations to which inequity theory is meant to apply?

The first question can best be answered in two ways. First, as stated previously, social exchange theory or demand effects are superior explanations of the early experiments using Adams' inequity induction procedure (overpay by lack of qualifications). Second, many experiments cited as significant and strongly supportive may not be on closer analysis. Consider two examples. The largest single experiment (Pritchard, Dunnette & Jorgenson, 1972), usually cited as strong support, is represented as finding that overpaid workers were more dissatisfied with their jobs and did significantly more work than underpaid workers (cf. Adams & Freeman, 1976). Actually, only underpaid workers were dissatisfied with their pay and their job, performance differences across groups were not significant for hourly workers, and a nearly significant anti-equity performance effect was found for piece-rate ("interval") workers. A second study (Garland, 1973) is perhaps the only uncontaminated study to obtain clearly significant effects on both quantity and quality of piece-rate work. However, small inconsistencies remain. Overpaid workers appear to enjoy the job more and tend to be more, rather than less, satisfied with the pay. Self-report of effort expended was not different across conditions. Finally, when asked to state fair rates of pay, workers named approximately the wage they were receiving. These results are compatible with some alternate explanation, such as reciprocity.

The current experiment may be criticized for statistically weak findings. It may also be faulted for providing only a brief employment setting in the laboratory rather than a regular fulltime job. In defense, however, it may be stated that adequate manipulation checks were obtained and that the performance effects, if considered nonsignificant, replicate the larger Pritchard et al study and the Haccoun and Wood study. If the performance effects are considered significant, the results are contrary to inequity theory in finding higher quality and lower quantity for underpay. It is this reverse performance effect which needs explanation.

At least four explanations are available for lower quantity with lower perceived pay. First, underpay, even as defined by social comparison, may be perceived as below comparison level and result in a partial withdrawal from the situation, i.e., not rushing the work. Second, perceived underpay may threaten self-esteem and create a quality set. Third, increasing the perceived relative pay might simply sharpen competitive instincts. Competitive effects also occurred in the Middlemist and Peterson (1976) experiment. Finally, the valence of the same absolute level of pay might be enhanced by social comparison overpay and decreased by social comparison underpay. If so, overpaid workers were more interested in earning money (high quantity) than underpaid workers.

Equity theory has been advanced as a general theory of human behavior (Adams, 1963; Walster, Berscheid & Walster, 1973). The conceptual analysis and experimental results reported here seriously question this. One clear weakness of the theory is that, it merely assumes that a social comparison process will take place and that this social comparison will focus of questions of fairness. Unfortunately, when individuals do make social comparisons, they are just as likely to be concerned about status, self-esteem, and abilities as well as fairness. Unless equity theory can specify the conditions under which concern for fairness is stronger than these other motives, it is not likely to be a general theory of human behavior or even able to make clearly testable predictions.

Reference Note

1. Haccoun, R. R., & Wood, M. T. Work behavior effects of referent specificity in equity inductions and reversals. Unpublished manuscript, Ohio State University, 1973.

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